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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,920	11/06/2001	David W. Boreham	13220.006001; P5841	5466

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EXAMINER	
LIEN, TAN	

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/993,920	BOREHAM ET AL.	
	Examiner	Art Unit	
	Tan Lien	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/6/01* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/18/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to because of the following informalities:

FIGURE 6: The reference numbers are there but the figures do not show any purposes for being there, for example reference 160,162 and 154,156. At least give them name to show they are different.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-24 are objected to because of the following informalities: the claim should be enumerated as numbers instead of c1 to c24. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 10-12, and 14-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Boreham et al (USPGPub 2003/0055917).

Claim(s) 1, 6, 24: Boreham teaches a virtual attribute service in a directory server, comprising:

an attribute value associated with an entry (Abstract and FIG. 4; wherein each attribute value has an associated entry);

a virtual attribute service provider (paragraph [0034] and FIG. 1; wherein the directory server contains Directory System Agents); and

an interface using the virtual attribute service provider to generate the attribute value associated with the entry (FIG. 1; wherein the DSP is the protocol that is used to communicate among DSAs).

Claim(s) 2: Boreham teaches a virtual attribute service of claim 1, wherein the attribute value is not physically contained within the entry (Abstract; wherein an indirect CoS identifies an entry using the value of one of the target entry's attribute).

Claim(s) 3, 10: Boreham teaches a virtual attribute service of claim 1, wherein the virtual attribute service provider comprises a role service (paragraph [0020]).

Claim(s) 4, 11: Boreham teaches a virtual attribute service of claim 1, wherein the virtual attribute service provider comprises a class of service (paragraph [0020]).

Claim(s) 5, 12: Boreham teaches a virtual attribute service of claim 1, wherein the virtual attribute service provider is implemented as a plugin to the directory server (paragraph [0214]).

Claim(s) 7: Boreham teaches the method of claim 6, further comprising:

using a memory cache to store the value of the virtual attribute (paragraph [0066] and [0110]).

Claim(s) 14: Boreham teaches a class of service in a directory server, comprising:

a definition entry identifying a type of class of service; and

a dynamic template entry storing a list of the shared attribute values;

wherein the definition entry and the dynamic template entry interact to provide an attribute value to a target entry (Abstract).

Claim(s) 15: Boreham teaches a class of service of claim 14, wherein

the definition entry is stored as a subentry in a directory information tree below a branch at which the class of service is effective (paragraph [0036]).

Claim(s) 16: Boreham teaches a class of service of claim 14, wherein

the target entry comprises an entry pointing to the class of service (Abstract; wherein the indirect CoS is a pointer to the class of service).

Claim(s) 17: Boreham teaches a class of service of claim 14, wherein

changes to the attribute value of the dynamic template entry are applied to all entries sharing the attribute value (Abstract and paragraph [0036]; wherein when

sharing attributes between directory entries, changing the value of the template entry does not change the pointer or references).

Claim(s) 18: Boreham teaches a method for generating an attribute value of a class of service in a directory server, comprising:

identifying a dynamic template entry by a distinguished name;

adding a specific attribute to the dynamic template entry; and

generating the attribute value of the dynamic template entry while a client application is accessing the directory server (Abstract and paragraph [0036]).

Claim(s) 19: Boreham teaches the method of claim 18, wherein

the specific attribute is a cosPointerDefinition object class (paragraph [0036]).

Claim(s) 20: Boreham teaches a method for generating an server, comprising:

attribute value of a class of service in a directory identifying a dynamic template entry by an attribute value of a target entity;

adding a specific attribute to the dynamic template entry; and

generating an attribute value of the dynamic template entry while a client application is accessing the directory server (Abstract and paragraph [0036]).

Claim(s) 21: Boreham teaches the method of claim 20, wherein

the specific attribute is a cosIndirectDefinition object class (paragraph [0036]).

Claim(s) 22: Boreham teaches a method for generating an attribute value of a class of service in a directory server, comprising:

identifying a dynamic template entry by a distinguished name and an attribute value of a target entry;

adding a specific attribute to the dynamic template entry; and

generating an attribute value of the dynamic template entry while a client application is accessing the directory server (Abstract and paragraph [0036]).

Claim(s) 23: Boreham teaches the method of claim 22, wherein

the specific attribute is a cosClassicDefinition object class (paragraph [0036]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boreham in view of Cassidy et al (US Pat. 6,249,883).

Claim(s) 8: Boreham teaches the method of claim 6, but fails to teach

maintaining a count for a number of times a query passes through the common interface; and

flagging an error and aborting the execution of the virtual attribute service if the count exceeds a threshold number.

Cassidy, in an analogous art, teaches a method of monitoring domain controllers and other services such as LDAP lookups (col. 11 AlertTypeLDAPLoadTooHigh description) by keeping track of the time and comparing it to a threshold value and raising the alert condition (Abstract Cassidy) and keeping a synchronization count to see if it exceed a threshold value (col. 13 AlertTypePropDroppedSyncHigh description). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Boreham's method of generating a value of a virtual attribute with Cassidy's method of monitoring domain controllers and other services by keeping a count and comparing it to a threshold value, and alerting the user if a condition is violated, for the advantage of an improved monitoring services for reducing the risk of interference that occasionally prevents reliable access to the data and operation of services (col. 2, lines 32-36 Cassidy).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boreham in view of Trevor et al (US 2002/0049761).

Claim(s) 9: Boreham teaches the method of claim 6, but fails to teach

checking a configuration change within a service provider against the configuration of all service providers;

determining whether a cycle is created; and

flagging an error and aborting the execution of the virtual attribute service if a cycle is created.

Trevor, in an analogous art, teaches a method of detecting and preventing recursive loops using an intensional answer or a response with a policy configuration file and alerting the loop detection with an intensional answer (Abstract Trevor). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Boreham's method of generating a value of a virtual attribute using loop or cycle prevention checking with Trevor's method of preventing recursive loop, for the advantage of detecting and preventing recursive loop in query and lookup services (Abstract Trevor).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boreham in view of Cassidy et al (US Pat. 6,249,883) and Trevor et al (US 2002/0049761).

Claim(s) 13: Boreham teaches a method of generating a value of a virtual attribute, comprising:

calling a virtual attribute service by an executable application (Abstract);

consulting a virtual attribute service provider within a common interface of the virtual attribute service (Abstract);

using a memory cache to store the value of the virtual attribute (paragraph [0066] and [0110]);

wherein the value of the virtual attribute is generated by the virtual service provider accessed by the common interface (Abstract).

Boreham, however, fails to teach

maintaining a count for the number of times a query passes through the common interface;

flagging an error and aborting the execution of the virtual attribute service if the count exceeds a threshold number; and

checking a configuration change within a service provider against the configuration of all service providers;

determining whether a cycle is created; and

flagging an error and aborting the execution of the virtual attribute service if a cycle is created;

Cassidy, in an analogous art, teaches a method of monitoring domain controllers and other services such as LDAP lookups (col. 11 AlertTypeLDAPLoadTooHigh description) by keeping track of the time and comparing it to a threshold value and raising the alert condition (Abstract Cassidy) and keeping a synchronization count to see if it exceed a threshold value (col. 13 AlertTypePropDroppedSyncHigh description). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Boreham's method of generating a value of a virtual attribute with Cassidy's method of monitoring domain controllers and other services by keeping a count and comparing it to a threshold value, and alerting the user if a condition is violated, for the advantage of an improved monitoring services for reducing the risk of interference that occasionally prevents reliable access to the data and operation of services (col. 2, lines 32-36 Cassidy).

Trevor, in an analogous art, teaches a method of detecting and preventing recursive loops using an intensional answer or a response with a policy configuration file and alerting the loop detection with an intensional answer (Abstract Trevor). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Boreham's method of generating a value of a virtual attribute using loop or cycle prevention checking with Trevor's method of preventing recursive loop, for the advantage of detecting and preventing recursive loop in query and lookup services (Abstract Trevor).

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tan Lien whose telephone number is (571) 272-3883. The examiner can normally be reached on Monday-Thursday from 8:30am to 6pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for this Group is (703) 305-3718.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [tan.lien@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER